

STATEMENT OF CONSIDERATIONS

Request by Siemens Energy, Inc. for an Advance Waiver of Domestic and Foreign Invention Rights under DOE Contract No. DE-FE0005666, W(A) 2012-028, CH-1668

The Petitioner, Siemens Energy, Inc. (Siemens) was awarded the subject cooperative agreement with the U.S. Department of Energy (DOE) for the performance of work entitled, "Condition-Based Monitoring of Turbine Blades Demonstrated in H-Class Engine". The goal of this project is to design and develop engine test hardware and software technologies that will enable Component Based Automation (CBA) and Condition Based Monitoring (CBM) procedures to be implemented to monitor turbine blades in large industrial gas turbines and small oil and gas turbines. The specific objectives are (1) to fabricate and install Smart Turbine Blades with embedded thermally sprayed sensors and high temperature wireless telemetry systems in an H-Class engine to calibrate infrared (IR) cameras and non-intrusive stress measurement system (NSMS) probes, resulting in acquisition of high-accuracy 2D maps of temperature and vibratory modes from a full row of turbine blades, (2) to integrate the component engine test data with remaining useful life (RUL) models and develop an approach for networking the component RUL data with Siemens' Power Diagnostic engine monitoring systems, and (3) to develop the technologies required to miniaturize the high temperature wireless telemetry systems for use in small turbine blades, such as those in the rear states of the compressor of industrial gas turbines (IGTs) and in small turbines used in the oil and gas, marine- and aero-propulsion industries. Further details of the project objectives are provided in response to question 2 of the attached waiver petition. The waiver will apply to Siemens employees and its subcontractor employees, except for inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517, and National Laboratories.

At the time of petition, the work under this agreement is expected to take place from October 1, 2010 through September 30, 2012. The total amount of the contract is expected to be \$1,678,246, with DOE expected to provide \$1,191,553 or 71%. Siemens is expected to provide the remaining 29% cost share or \$486,693. This waiver is contingent on Siemens maintaining, in aggregate, a cost sharing percentage of at least 20% during the course of the award.


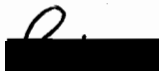
In its response to questions 5 and 6 of the attached waiver petition Siemens has described its technical competence in the field of high performance gas turbine engines and combustion systems. Siemens states it has over 120GW of installed gas turbine power generation worldwide. Over the past 15 years it has developed gas turbines and related systems. Its engineering staff has expertise in mechanical design, heat transfer, aerodynamics, computational fluid dynamics, thermal acoustics, combustion kinetics, finite elements and probabilistic analysis, material systems, testing diagnostics and sensors, to manufacturing, auxiliaries, generators and controls. A representative list of relevant patents and patent applications is attached as Attachment 1 to the petition. Siemens also states that it is a manufacturer of electrical power generation equipment and a service provider to this equipment. Its turbine-generator equipment represents 33% of the installed base in the United States. Siemens' response demonstrates its technical competency in the field of gas turbine and combustion systems.

In its response to question 10 of the attached waiver petition, Siemens states that granting the waiver will not place it in a preferred position in this field. Siemens also states that it competes with other global companies that have the potential to develop advanced monitoring systems for gas turbine engines for utility applications. General Electric, Alstom, and Mitsubishi Heavy Industries (MHI) all produce gas turbines with similar components. There does not appear to be any evidence that grant of the waiver will adversely impact competition or market concentration. Acquisition of waiver rights would not place Siemens in a preferred position, rather, it would allow Siemens to remain competitive in a global marketplace.

The subject contract will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein Siemens has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Siemens agrees to substantial U.S. manufacture of subject inventions (attached hereto). Additionally, Siemens agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements. The Contractor agrees to submit copies of issued U.S. Patents resulting from waived inventions, and to submit annual reports on the utilization of a waived invention or on efforts at obtaining such utilization that are being made by the Contractor or any of its licensees or assignees.

In view of the cost sharing and other equities between Siemens and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by Siemens' employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National Laboratories, to Siemens or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent Counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute Siemens' certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Furthermore, a subcontractor has the right to request a waiver from DOE in its own right, rather than having to pass through the contractor to acquire title to subject inventions. Additionally, subcontractors who receive title under this waiver shall notify DOE Patent Counsel in writing of such disposition of patent rights.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, there is no evidence at this time that grant of the above requested waiver would result in an adverse effect on competition or result in excessive market concentration. Therefore, in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver, as set forth above, be granted.


Mark P. Dvorscak
Deputy Chief Counsel
Office of Intellectual Property Law
Date: September 4, 2012
Amended: May 20, 2013 

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, it is determined that the United States and the general public will best be served by a waiver of rights of the scope described, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

APPROVAL



Darren J. Mollot
Director
Office of Clean Energy Systems
FE-22

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Assistant General Counsel
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GC-62

Date: 6/3/13

Date: 6/10/2013

(t) U. S. COMPETITIVENESS The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.